

News

# Case Study: Making Fashion POP

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Established in 1978, LANDI S.R.L. originally specialized in galvanic treatments for brass, zinc die-casting, and aluminum, primarily serving the precious metals market.

By 2006, LANDI expanded its focus to include galvanic treatments for fashion accessories, marking the beginning of a long-term partnership with MacDermid Enthone Industrial Solutions, a global market leader specializing in the manufacture of chemical compounds for surface coating applications.

Through this collaboration, LANDI developed specialized capabilities in brass, zinc die-cast, and light metal treatments for luxury leather goods, strengthening its market presence. In 2020, with the luxury fashion sector increasingly prioritizing safety and sustainability, LANDI took proactive steps to update its finishing processes. They partnered with MacDermid Enthone to innovate sustainable alternatives to conventional processes commonly used within the industry. Other Plating on Plastic platers within the luxury space utilized hexavalent chromium and a nickel-based sequence after etching was complete. These processes deliver a luxury aesthetic but expose applicators to harmful toxins and utilize forever chemicals, including PFAS. LANDI made the choice to move to chrome-free etch technology in partnership with MacDermid Enthone, eliminating these risks within LANDI's operations, creating safer and more sustainable plating processes.

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Plating on Plastic (POP) technology, commonly used for chrome finishes on plastic substrates in sanitary and automotive applications, was adapted for fashion goods. MacDermid Enthone's [evolve BOND™](#) technology, a sustainable POP solution, proved ideal for meeting the aesthetic requirements of elite luxury brands while aiding LANDI in improving the safety and sustainability of its operations. Successful beta

testing led LANDI to install a new POP line with evolve BOND™ technology in 2021. Upon completion of this installation, they quickly began utilizing evolve on studs and decorative pieces for footwear and clasps and finishes on leather goods, including bags, belts, and jackets.

This strategic investment provided LANDI with a competitive edge, establishing them as Italy's sole provider of chrome-free etch technology for Plating on Plastic components within the luxury fashion sector. In 2024, LANDI completed the construction of a new plant, expanding its portfolio to include comprehensive solutions for fashion industry accessories and hardware. This expansion was achieved through continued partnership with MacDermid Enthone, involving custom tooling and line optimizations to enhance plating efficiency and quality.

"Our cooperation with LANDI has elevated the chromium-free metallization cycle within the global footwear accessories market," noted Davide Rossi, DPM Technical Manager at MacDermid Enthone. "This includes operational enhancements driving productivity and cost efficiency, as well as cycle and process control optimizations through in-line electroless copper analyzers and etching analysis. These quality assurance measures ensure that evolve chrome-free etch meets the rigorous performance standards demanded by the luxury market."

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LANDI's commitment to sustainability extended beyond chrome-free solutions. They eliminated nickel usage, adopting safer electroless copper deposits as a final stage before nickel-free plating sequences. These innovations ensure compliance with REACH regulations while offering cutting-edge technology to the fashion sector.

Thanks to the implementation of evolve chrome-free etch processes, LANDI has successfully penetrated new markets, developing strong relationships with major luxury shoe manufacturers. Along with increasing profits, their investment in safe and sustainable technology has helped LANDI reduce its carbon footprint while enabling its OEM partners to do the same. Through innovation and a strong partnership with MacDermid Enthone, LANDI solidified its position in the Italian

luxury market, with ongoing growth in market share and capacity expansion. Together, the two have set a new model for sustainability and excellence that other industries can learn from.

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